



**INDUS UNIVERSITY IITE**  
Constituent Institutes of Indus University

X-CE0622-005

Semester: VI

Branch: CE/IT/CSE

**END SEMESTER EXAMINATION – MAY 2023**

Subject Code: CE0622

Subject Name: Internet of Things

Date: 15/05/2023

Time: 02:00 PM-05:00 PM

Day: Monday

Total Marks: 100

**Instructions:**

1. Attempt all questions
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicates full marks

- Q.1**    **A** List the applications of IoT in various fields. Explain any three application in detail with a proper example. 10
- B** Draw block diagram of Physical Design of IoT and explain each block in detail. 10
- Q.2**    **A** List out the steps involved in IOT system design methodology and explain operational view specification in detail. 10
- B** Explain SaaS, PaaS, IaaS in detail. 10
- Q.3**    **A** Discuss various security and privacy issues in the Internet of things. 10
- B** Draw open IOT architecture and explain each block in detail. 10
- Q.4**    **A** List the features of ESP8266. Compare ESP8266 and Arduino board. 10
- B** What is cloud computing ? What are Basic Cloud Characteristics? 10
- Q.5**    **Any Four**
- A** Draw the connection diagram of interfacing a buzzer with arduino and write a program to generate different tone using PWM. 05
- B** Write a program to Interface Ultrasonic sensor with arduino board. 05
- C** Write a program to Interface LDR sensor and print light intensity on serial terminal. 05
- D** Explain the use of the following functions of arduino. 05
1. analogWrite()  
              2. Serial.println()
- E** Describe GPIO library and its functions available in raspberry pi. 05

F Explain the following functions.

1. `WiFi.begin()`
2. `WiFi.config()`

05

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